HOMESTAKE
Grants Project

Homestake Mining Company of California

David W. Pierce
Closure Manager

24 April 2020

Ms. Ashlynn Winton
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, NM 87502

Mr. Ron Linton, Project Manager
U.S. Nuclear Regulatory Commission
Materials Decommissioning Branch
Decommissioning, Uranium Recovery & Waste Programs
Office of Nuclear Materials Safety and Safeguards
MS T-5A10, 11545 Rockville Pike
Rockville, MD 20852

RE: Homestake Mining Company, Grants Reclamation Project, License Source Materials License SUA-1471, Docket Number 40-8903; NMED Discharge Permit DP-200: 15-Day/30-Day Corrective Action Report for the Unauthorized Discharge from Clarifier #2 Blowdown Pump

Dear Ms. Winton/Mr. Linton:

This letter will serve as the 15-day report as required by 20.6.2.1203.A (6) NMAC in the Homestake Mining Company (HMC) New Mexico Environmental Department (NMED) Discharge Permit (DP-200). In addition, this letter will also serve as the 30-day report of a release as required by Condition 41 of Nuclear Regulatory Commission (NRC) Materials License SUA-1471. The letter report provides additional details regarding the unauthorized release of impacted water/sludge and subsequent remediation from the HMC Clarifier #2 Blowdown Pump as previously notified by letter on 4/03/2020 to the NMED and NRC. A 15-day extension was requested from NMED on April 8, 2020 by telephone and subsequent email to allow completion of the corrective action.

Upon arriving at the Reverse Osmosis Water Treatment Plant (RO WTP) on Friday morning (March 27th), workers immediately noticed the release of sludge from the clarifier. Further inspection showed that the sludge was being released through the blowdown pump seal. This seal is the same one that failed in September 2019. At that time, HMC ordered replacement parts and received a generic part which was installed since original equipment parts were not available for several weeks. This generic seal is the one that failed. It should be noted that the sludge release was limited to the site adjacent to the clarifier and did not migrate offsite.

The failure resulted in the release of approximately 3-4 cubic yards of sludge consisting of spent lime from clarifier #2 (see photographs). The release occurred immediately adjacent to the clarifier, was contained onsite, and was cordoned off by site personnel pending remediation efforts. Sludge concentrations were estimated from existing data from sludge samples collected in the collection ponds The pond samples exhibited a uranium concentration of 3,090 milligrams/kilogram, radium 226 concentration of 0.3 picoCuries/gram-dry (pCi/g-dry), and thorium 230 concentration of 0.3 pCi/g-dry.

Spill remediation was delayed until April 9th, due to positive COVID-19 tests on HMC

employees. Prior to other employees returning to work, HMC provided COVID-19 testing to non-symptomatic employees and performed a hyper-cleaning of the office and RO WTP control room. On April 9th, a contractor was brought in to perform the work. The work was performed under a radiation work permit (RWP) overseen by site personnel. The sludge was loaded into a front-end loader by hand for disposal in Evaporation Pond #1 (EP-1). In addition to the sludge removal, underlying impacted soil and gravel cover was over-excavated and placed into EP-1 along with the sludge. An estimated total of 8-10 cubic yards of material was removed and placed into EP-1 and the area was redressed with imported material and fresh gravel. Photographs showing the area after remediation are attached.

Once the area was redressed, the failed seal was removed and replaced with an original equipment part on Monday, April 13th. Upon replacement, the RO WTP was brought back online on Tuesday, April 14th. System startup included flushing the micro-filtration break tank, performing enhanced flux maintenance on skids A and B of the micro-filtration system, balancing the pH level in the Flash Mix Tank, and closely monitoring Low Pressure RO 1 (LPRO1) during startup (i.e. pressures, conductivities, recovery, etc.). The RO WTP is currently treating water at 300 gallons per minute.

If you have any questions or require additional information regarding this matter, please contact me via e-mail at dpierce@homestakeminingcoca.com or at the Grants office at 505.238.9701.

Respectfully,

David W. Pierce

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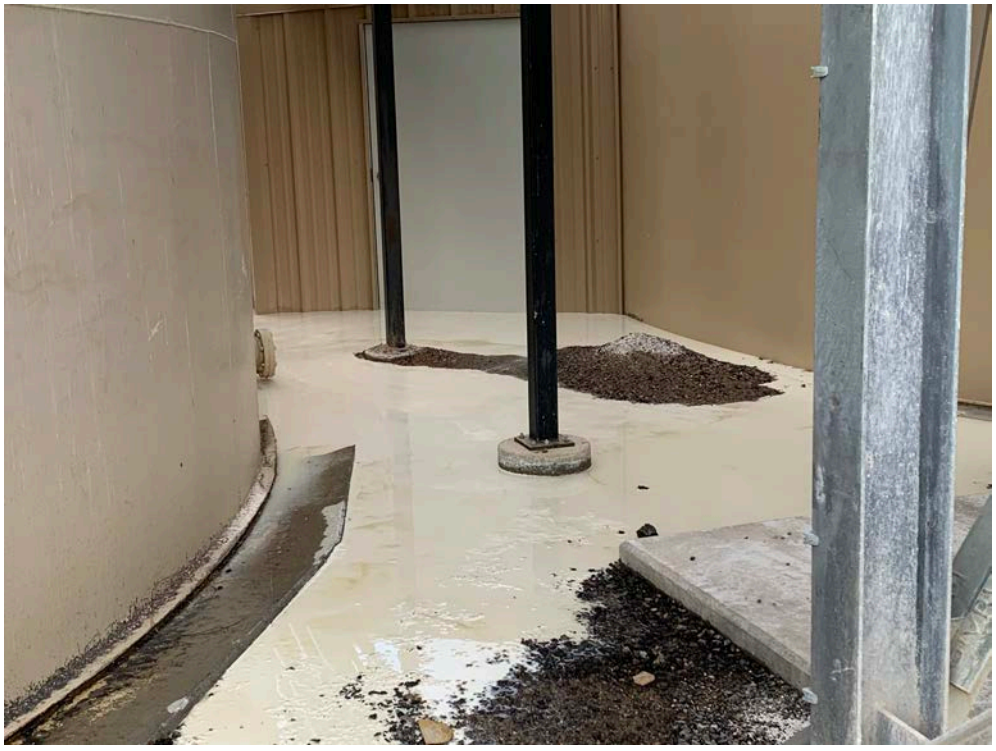
Copy To:
R. Linton, NRC, Rockville, Maryland (electronic copy)
Mark Purcell, EPA, Dallas, Texas (electronic copy)
M. McCarthy, Barrick, Salt Lake City, Utah (electronic copy)
D. Lattin, Barrick, Elko, Nevada (electronic copy)
R. Whicker, ERG, Albuquerque, New Mexico (electronic copy)

Attachment 1



Photograph 1 showing sludge release adjacent to Clarifier #2

Photograph 2 showing another view of sludge release adjacent to Clarifier #2

Photograph 3 showing similar view as Photograph #2 after cleanup of sludge release

Photograph 4 showing another view of area after sludge cleanup